II. REMARKS

Claims 1, 2, 5-13, 16-27, 41-44 and 47-57 remain pending and under examination. Applicants respectfully request favorable reconsideration and allowance of the pending claims in view of the remarks provided herein.

Claims 1, 2, 5, 6, 8-13, 16, 17, 19-27, 47-50 and 52-57 have been rejected under 35 U.S.C. §103(a) as being as being unpatentable over Robinson et al. (United States Patent No. 5,580,532) in view of Myles et al. (United States Patent No. 4,240,833).

Applicants respectfully traverse the rejection. The Examiner's basic position is that it would be obvious to substitute the melt-formed fibers of Myles for the sol-gel derived fibers of Robinson in the mounting mat of Robinson, as one having ordinary skill in the art would recognize alleged inherent properties in the melt-formed fibers and that the melt-formed fibers are functional equivalents in mounting mat applications.

The presently claimed support element comprises melt-formed and heat-treated ceramic fibers possessing certain claimed percent crystallinity and crystallite size. To begin, Robinson only discloses to use sol-gel derived fibers and does not disclose, suggest, or provide motivation to utilize melt-formed ceramic fibers to prepare a support element for an exhaust gas treatment device. Robinson discloses that suitable fibers for use in preparing a mounting mat include polycrystalline ceramic oxide fibers prepared in accordance with United States Patent No. 4,159,205 and United States Patent No. 4,277,269. These references only teach sol-gel processes preparing polycrystalline ceramic oxide fibers. The disclosed sol-gel processes involve fiberizing fibers from a solution of dissolve ceramic oxide precursor material. The Office Action does not dispute this position.

Moreover, the Office Action expressly and unequivocally concedes that Robinson does not disclose or suggest a support element for an exhaust gas treatment device containing ceramic fibers having the percent crystallinity or crystallite size as claimed in the present application. Applicants agree and further respectfully submit that Robinson does not provide any suggestion or motivation to heat-treat the ceramic fibers to provide such crystallinity and crystallite size.

Additionally, Myles does not disclose, teach or suggest to use sol-gel fibers whatsoever, or to use melt-formed fibers in a support element for an exhaust gas treatment device, or that melt-formed fibers are a functional equivalent to sol-gel fibers.

In view of the above, the only disclosure to use melt-formed and heat-treated ceramic fibers having the presently claimed properties comes from Applicant's present application. It does not come from the cited references. To illustrate Applicant's position, the Office Action recites at Page 5, "This is further evidenced by Applicant's specification , at page 6, lines 12-22, which states that, 'When such fibers are employed, the support mat provides a minimum pressure for holding the fragile catalyst support structure within the housing . . .' It is present application, and not the cited art, that provides the teaching that melt-formed and heat-treated fibers can be used in a support element for exhaust gas treatment devices and that these fibers possess the requisite crystallinity and crystallite size.

"A fact-finder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning." *KSR International Co. v. Teleflex Inc.,* 550 U.S. __, 82 USPQ2d 1385 (2007), (Slip. Op. at 17). See Also, *Graham v. John Deere Co of Kansas City,* 383 U.S. 1, 36 (1966) (warning against "temptation to read into the prior art the teaching of the invention in issue" and instructing courts to " 'guard against slipping into the use of hindsight' "), quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.,* 332 F.2d 406, 412 (CA6 1964); *In re Fritsch,* 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992)("It is impermissible to use

the claimed invention as an instruction manual or a "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious." This court has previously stated that "one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."). Therefore, it is clear that the Examiner is relying on Applicant's present disclosure to reconstruct the claims in the cited art. The combination Robinson and Myles is based on improper hindsight reasoning and therefore the rejection should be withdrawn.

Page 7 of the Office Action also attacks Applicant's claimed feature of a "sacrificial binder". The precise reason to add a sacrificial binder to the support element is to provide flexibility when handling the support element when wrapping it around a fragile catalyst support structure. Myles, on the other hand, discloses that the mat is flexible enough without binder. Consequently, one having ordinary skill in the art would not be lead to add a sacrificial binder to the mat of Myles to impart flexibility when Myles teaches an alleged adequate flexibility without binder. The Office simply cannot ignore claimed features or dismiss them as routine design changes when the cited art does not indicate the desirability of such features.

Claims 7, 18, 41-44 and 51 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Robinson et al. in view of Myles et al., and in further view of Sasaki et al. (JP 07-286514). Applicants respectfully traverse the rejection.

Applicant's traversing arguments presented above with respect to the improper combination of Robinson and Myles are not repeated, but are incorporated herein by reference against the rejection of claims 7, 18, 41-044 and 51. Sasaki et al. disclose a "holder" for exhaust gas purifying devices. The holder is comprised of alumina fibers. The composition of the alumina fibers of Sasaki et al. is strictly limited to fiber compositions having a weight ratio of Al_2O_3:SiO_2 of 70:30 – 74:26. See Abstract (Pages 1 and 2); Claim 1; and Page 4, Lines 3-7. In fact, Sasaki et al. expressly teach that when the Al_2O_3:SiO_2 ratio is not in the range of 70:30 – 74:26, fiber deterioration occurs prematurely and the

fibers do not withstand long usage. See Page 4, Lines 4-7. Sasaki et al. also teach that when the alumina to silica ratio is not in the above-described range, fiber deterioration caused by crystallization and crystal growth at high temperatures occurs prematurely and it does not withstand long usage. See Sasaki et al., paragraph 5. Myles et al. teach the fibers are manufactured from a melt containing about 40 to about 65 weight percent alumina and from about 35 to about 60 weight percent silica. See Myles et al., column 2, lines 36-40. Since the range of weight percent of alumina taught by Sasaki et al. is 70 to 74, and since the range of weight percent of alumina taught by Myles et al. is 40 to 65, the respective ranges of alumina are mutually exclusive. Since the range of weight percent of silica taught by Sasaki et al. is 26 to 30, and since the range of weight percent of silica taught by Myles et al. is 35 to 60, the respective ranges of silica are mutually exclusive.

Page 8 of the Office Action states that Sasaki was merely relied upon for its general teaching of reducing shot content in ceramic fibers, in order to maintain a uniform thermal conductivity in the support element/mat (with respect to claims 7, 18 and 51), and its general teaching of applying needling to a support element/mat of ceramic fibers, in order to increase its bulk density and prevent the separation or shifting of layers (with respect to claims 41-44).

It is impermissible within the framework of 35 U.S.C. §103 to pick and choose from any single reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. *Lubrizol Corp. v. Exxon Corp.*, 896 F. Supp. 302, 322, 7 USPQ2d 1513, 1527 (N.D. Ohio 1988) (It is not permissible to pick and choose only so much of any given reference as will support a given position and ignore the reference in its totality."). In *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, the Federal Circuit held that a single line in a prior art reference should not be taken out of context and relied upon with the benefit of hindsight to show obviousness. 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986), *cert. denied,* 484 U.S. 823 (1987). Rather, a reference should be considered as a whole, and portions arguing against or teaching away

from the claimed invention must be considered. The Office Action simply ignores all of the teachings in Sasaki about fiber composition that would lead one having ordinary skill in the art away from combination with Robinson and Myles, but impermissibly picks and chooses a couple of teachings about shot content and needling to support the rejection. It is not proper to ignore the teachings of Sasaki which would teach against combination with Robinson and Myles and select tangential teachings about shot and needling to support the rejection. Moreover, given the differences in fiber chemistry between Myles and Sasaki, there is no expectation that the teachings about shot content and needling would apply to the fiber compositions of Myles. This is simply conjecture on the part of the Office. In view of the improper combination of Sasaki with Robinson and Myles, Applicants submit that the rejection should be withdrawn.

In view of the above remarks, Applicants respectfully request withdrawal of all pending rejections, and further request the issuance of a formal notice of allowance directed to claims 1, 2, 5-13, 16-27, 41-44, and 47-57.

Should the Examiner have any questions regarding the remarks presented in the present response, Applicants' undersigned attorneys would welcome a telephone call.

Respectfully submitted,

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